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BY JULIA KING

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"We put **people** in front of our processes and look at all of our products through the **customer lens**," says JetBlue CIO **Eash Sundaram**.



FROM THE
EDITOR IN CHIEF

start

CHATTER

Mindset Makeover

Remember the joke about how to tell if you're talking to an introvert or an extrovert? (The extrovert is the one staring at your shoes instead of his own.)

That one-size-fits-all witticism is often aimed at IT people, engineers, accountants, or anyone with a nerdy job requiring a science or math background. (I'm guessing it was created by someone in marketing or sales.)

Yet for CIOs in today's customer-centric business world, IT's introverted, inward-facing reputation is no laughing matter. As our cover story ("About Face!," page 22) points out, the traditional IT organization is getting a new set of marching orders. What matters now—and will matter even more so in the future—is using IT to understand what external customers want and to engage more directly with the rest of the business.

When CIO Joe Drouin joined homebuilding company PulteGroup two years ago, "There was this very traditional idea that IT was a service provider and the customer was everyone else inside Pulte," he recalls. "Today, we don't talk about IT and the business. We talk about IT as part of the business—as ingrained and as tightly woven as any other function, and contributing to business strategy."

Thinking about how IT can better serve external customers, clients or partners requires a mindset makeover for behind-the-scenes technologists, adds CIO Eric Singleton of specialty retailer Chico's. "You think about things differently," he says. "You ask different questions that you don't ask if you're in a basement writing code for internal customers."

JetBlue Airways is gearing up to get rid of the check-in process entirely, because "it added no value to the customer," says CIO Eash Sundaram. "IT was accustomed to thinking in transactions. Instead, we wanted to look at the customer's airport experience."

By 2020, customer experience will overshadow price and product as key brand differentiators, according to Walker Information, a customer intelligence consultancy. One sure sign of a company making this customer-centric transition is the creation of new IT roles such as "director of customer engagement" or "business relationship manager." Another good indicator is seeing IT people in the field or working in the business units. "We make ourselves very visible," Asbury Automotive CIO Barry Cohen says of his team.

Granted, not everyone in IT belongs in a customer-facing role. But it's up to IT leaders to find and encourage those who do (no matter whose shoes they're looking at).

Maryfran Johnson, Editor in Chief, CIO Magazine & Events
mfjohnson@cio.com

C-Suite? No Thanks.

As baby boomers retire, there will be **plenty of C-suite vacancies** to be filled by a new generation. But a leadership study by Saba Software and Workplace-Trends.com found that **only 11 percent of employees aspire to C-level positions**. Organizations aren't doing enough to develop potential leaders, especially up-and-comers from the **millennial generation**, the study says. Boomers associate leadership with management roles and C-suite titles, but leadership is **less title-driven** for millennials. Indeed, many millennials already consider themselves leaders, regardless of title, if they **exert influence** within their organizations, have mastered an area of expertise and mentor others. www.cio.com/article/2907925/

The Price Is Right

There's an abundance of IT outsourcing business up for grabs, and a slew of **new technologies and delivery models** have recently emerged, so 2015 has turned into a buyers' market for IT services. IT service providers are engaged in a **price war** of a scale not seen in nearly 15 years, says outsourcing consultancy Information Services Group. The price wars also reflect the growing impact of **robotic process automation**, autonomics and cognitive computing, says outsourcing consultancy Alsbridge. Thanks to **autonomics**, some providers have **submitted bids up to 40 percent lower** than those of their competitors. www.cio.com/article/2906755/

Correction

In the April 1 article "Deconstructing IT," we incorrectly said that Aetna spun out the new business unit Healthagen from IT. It was established independently, not from IT. We regret the error.

Have a comment about a story in this issue? Go to www.cio.com/magazine or write to letters@cio.com.

A black and white photograph of two men in a modern office setting. They are standing at a desk, looking at a large computer monitor. One man is pointing at the screen with a pen. The desk is a height-adjustable standing desk. A blue rectangular overlay is on the left side of the image.

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FROM THE **CEO**

The 'Exponentials'

In all the reading I do about the technology landscape and the future of the CIO role, I encounter every kind of punditry and industry analysis: the obvious, the erroneous and, occasionally, the exceptional. In Deloitte Consulting's 2015 technology trends report on "The Fusion of Business and IT," I found some exceptional ideas worth sharing.

This robust, 148-page report covers all sorts of technologies that are changing our world: ambient computing, dimensional marketing, software-defined everything. Smart but obvious insights about high-growth areas.

Another smart but obvious insight centers on the CIO becoming a "chief *integration* officer" who will harness "emerging disruptive technologies for the business while balancing future needs with today's operational realities." We write about those kinds of CIOs in the pages of this magazine today, in fact.

But the one section that really caught and held my attention was about what the Deloitte authors call the "Exponentials." These are the "innovations that are accelerating faster than the pace of Moore's law . . . technologies whose performance relative to cost (and size) doubles every 12 to 18 months." As business and technology leaders, we should watch the horizon for signs of these five "exponentials" in particular:

- **Artificial intelligence:** AI is expected to augment human efforts in complex work and eventually replace humans for routine tasks.

- **Robotics:** Having mastered menial tasks, robots will take on traditional knowledge work and real-time gathering and interpretation of data.

- **Additive manufacturing:** Primarily with 3D printing in mind, I believe this will disrupt manufacturing in the same way the Internet disrupted media and publishing.

- **Industrial biology:** There's controversial but powerful potential here to leverage digital technologies for manipulating DNA, splicing genes and controlling genomes.

- **Quantum computing:** Still in its infancy, this largely theoretical field could one day usher in an era of almost unimaginable computing power. (Having a physics degree would help in understanding how real this one might actually be!)

I'd love to hear your thoughts on all this, so drop me a line anytime.

Michael Friedenberg, CEO
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Working With Startups? Savvy Advice for CIOs

Karla Viglasky understands the love-hate relationship CIOs have with the chaotic but compelling startup community.

"Dealing with them sometimes drove me crazy," said the former CIO of ITT. Now CIO-in-residence for Stafford and Associates, a consultancy that connects startups to CIOs, Viglasky spoke at our recent CIO Perspectives New York event about the most effective ways to work with early-stage companies and tech entrepreneurs. Here are some of her recommendations:

- Assign a single resource inside the IT organization to manage the relationship. "It's important to be patient," she counseled. "Treat them more like a partner than a vendor."
- Create a process for evaluating startups on criteria such as funding, leadership maturity, security and customer support. Perhaps most importantly, she advised, "figure out how much risk you're willing to take."

- Keep in mind that emerging technologies are often built on third-party platforms (like Amazon Web Services). "Asking about their foundational technology can save you time" in assessing compatibility with your environment, she said.

—Maryfran Johnson

“Network, and get involved with the startup community. They want to work with you.”

—KARLA VIGLASKY,
STAFFORD AND
ASSOCIATES

PROBLEMSOLVERS

On IT service delivery:

"If somebody asks you a question, you own it. Your job is to help facilitate it. [Saying] 'that's not my job' stops things in their tracks."

—Adam Noble, SVP and CIO, GAF

On customer expectations:

Engaging customers across channels "means simplifying the [technology] experience. When they go to a website or a store, customers want to be recognized as who they are."

—Sunil Verma, CIO, Vineyard Vines

On working with startups:

"To avoid them becoming a never-ending pet project, put together [an evaluation] process from beginning to end. If yes, success! If no, move on."

—Karla Viglasky, CIO in Residence,
Stafford and Associates



Shelly Palmer
Managing Director,
Landmark Ventures

A To-Do List for Data Science

How should CIOs set expectations about using data science for real-time business insights?

The job of the CIO is not to take every ounce of data from the outside world and analyze it. It's to pre-process the data that's available and analyze it to make sure the

right data sets are actionable in the right time frame. Everything doesn't have to be real time. The financial commitment to making certain things real time that don't need to be is so wasteful it's almost criminal. So the job of the CIO is to ask business partners why the data needs to be instantaneous and balance the temporal requirements with the financial requirements and the potential rewards.

Should CIOs be hiring data scientists into IT?

It's really hard to think about a single individual data scientist who has all three foundational skills: domain expertise, mathematics and computer science. The smartest thing

to do is to go to HR and ask to train the domain experts so that they're asking the right questions. [Companies] should put together a decent math department. Then the CIO's group will develop the... purpose-built environments where data science can take place.

Will we ever see data science as a service?

There will be data science departments at some of the largest corporations, but smaller organizations won't be able to have that kind of manpower. Domain expertise will be the critical differentiating factor. Mathematics and computer science will become commoditized.

—Lauren Brausell



UPCOMING EVENTS

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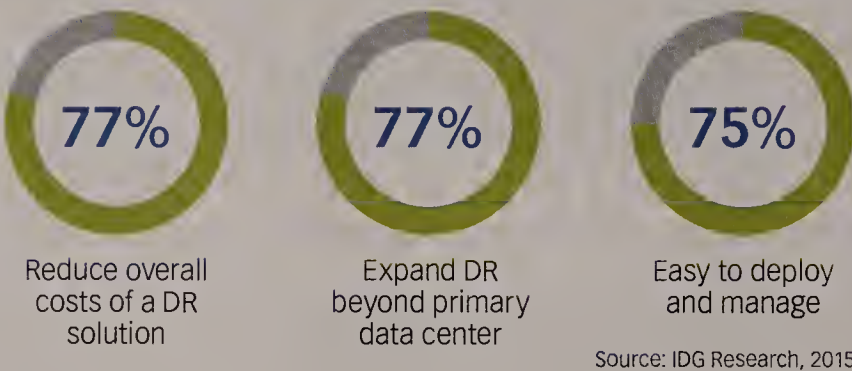
Cloud-based Disaster Recovery is Earning the C-Suite's Attention

AS ENTERPRISES DEPEND MORE AND MORE ON TECHNOLOGY TO CONDUCT BUSINESS, operational continuity increases as a priority for C-level executives. Their motivations are simple: to ensure against possible loss of productivity and revenue, and be prepared for any operational disruption.

IDG Research recently polled C-level executives to gain insights on current strategies for business continuity, specifically on disaster recovery (DR) planning. The results showed DR is a priority, especially around adopting a cloud-based DR solution, which is emerging as an attractive option to consider versus a traditional software and hosted method for protecting company data and applications.

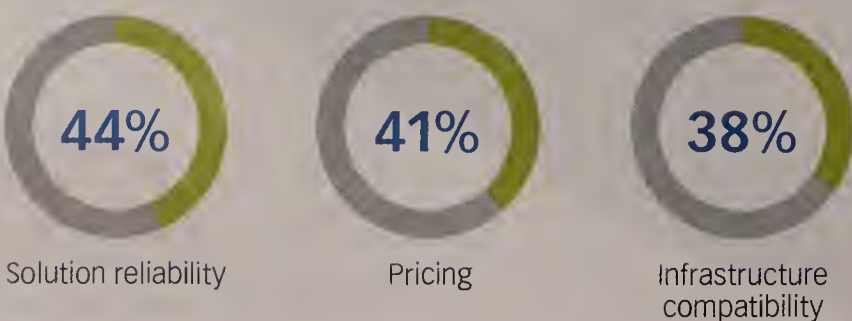
The top two main factors motivating this shift to a cloud-based solution are reducing costs and expanding DR coverage.

WHAT'S MOTIVATING C-SUITE INTEREST IN CLOUD-BASED DISASTER RECOVERY?



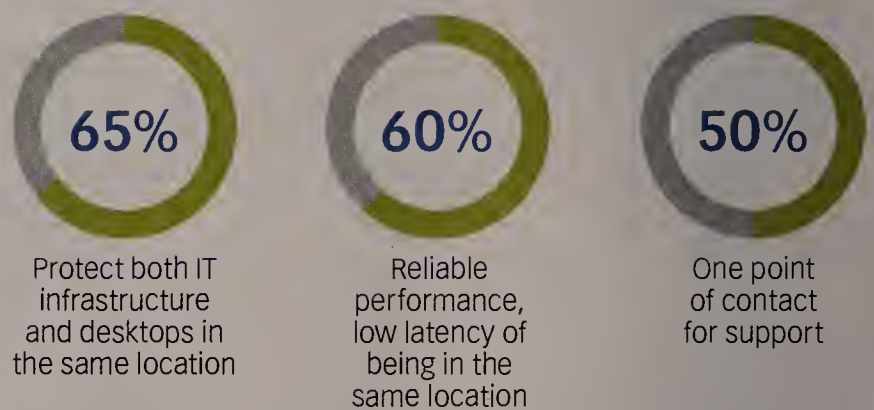
When it comes to evaluating cloud-based disaster recovery solutions, cost is also among the top three considerations, but other aspects are just as important.

C-SUITE PRIORITIES FOR DR SOLUTIONS



Along with an infrastructure level of protection, organizations are considering additional layers, like desktop, for operational continuity. Eight-five percent of polled C-level IT leaders consider using the same vendor for infrastructure and desktop DR, as the advantages for them are clear.

WHY USE A SINGLE VENDOR?



Source: IDG Research, 2015

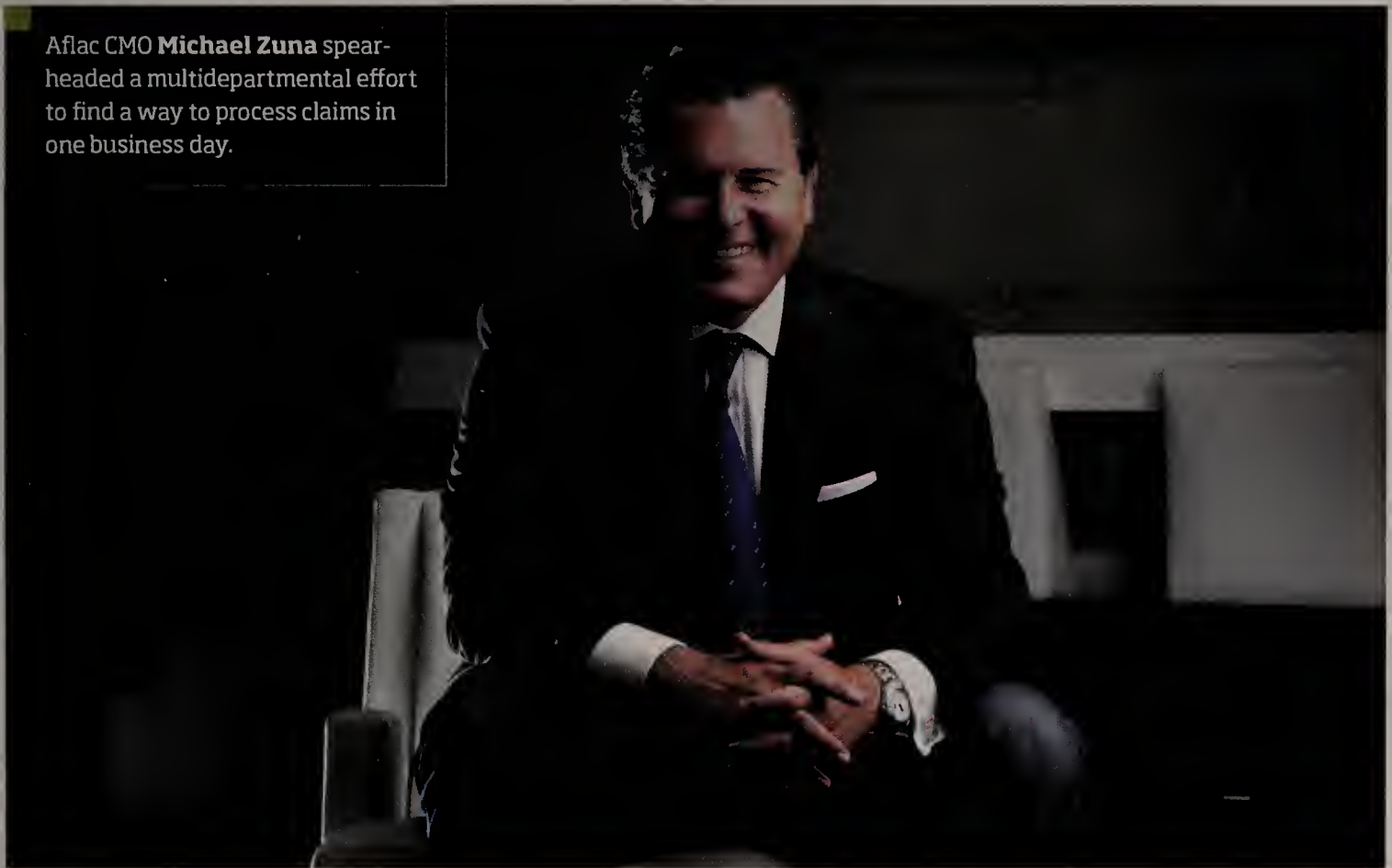
85% of polled C-level IT leaders consider using the same vendor for infrastructure and desktop DR, as the advantages for them are clear.

When IT leaders consider their DR plans, whether reassessing or expanding existing plans, or starting from scratch, 43% say they're considering cloud-based disaster recovery, indicating a shift in DR planning to the cloud to protect their environments.

To learn more about the trends and adoption of cloud-based disaster recovery, download the whitepaper, "Cloud-Based Disaster Recovery Among Top IT Priorities," at www.vmware.com/go/drsurveypaper.



Aflac CMO **Michael Zuna** spearheaded a multidepartmental effort to find a way to process claims in one business day.



11

Claims in the Fast Lane

Aflac can now pay customers in just one day, thanks to speedier IT systems **BY STEPHANIE OVERBY**

When it comes down to it, insurance is little more than an assurance. “When you think about what we sell, you can’t touch it, you can’t see it, you can’t smell it. Our product is nothing more than a promise to be there when you need it,” says Michael Zuna, CMO of Aflac, an insurer with \$120 billion in assets. “And that happens when you submit a claim.”

Aflac had previously reworked its claims processes to achieve the goal of processing and paying all customer claims within four days. In 2014, the company actually paid more than 6 million individual claims in an average of 2.8 business days. But early last year, company leaders began wondering what it would take to turn those claims around in just one day.

In today’s market, customers expect to get same-day service from their preferred brands, Zuna says. With that in mind, he started a discussion with CIO Julia Davis and Chief Administrative Officer Laree Daniel about “whether there was a way we could pay our customers even faster, given the trends of customer expectations.” ►►►

..... **63%** Executives who say that the monetization of data could become as valuable as their existing products and services. Capgemini/EMC

Once Davis picked her jaw up off the floor—"we were already the industry leader in claims processing, and now we wanted to do that even faster," she says—her team began figuring out how Aflac's claims technology could be optimized. They would have to modify 21 applications and create new rules for automated adjudication of claims. The initial plan to use the IT department's standard waterfall methodology would take too long to implement, says Davis, "so we had to get creative."

To speed up implementation, the group decided to use agile development methods; it was the largest project Aflac had ever handled that way, Davis says. They pulled together a multidepartmental team and put it on the project full time. After establishing the overall architecture, they broke the project into chunks, starting with complex issues like integrating with Aflac's bank for quicker payments. Then they conducted a pilot with employee claims.

"The most challenging aspect was trying to move the organization to working in this new agile model with one team completely sequestered working on nothing else. There were things people wanted to work on that had to be put on hold," says Davis.

In February, Aflac publicly introduced its One Day Pay initiative, which allows the company to receive, process, approve and disburse payment for eligible claims within one business day. As of early April, Aflac had processed more than 260,000 One Day Pay claims with a success rate of close to 100 percent for the 70 percent of individual claims that can be processed and paid that way. "It's a tremendous competitive advantage for us" and is expected to increase sales, says Zuna.

One side benefit: "We were able to prove that we can do things in a focused, sequestered manner much faster than we can when we're trying to accomplish 10 things simultaneously," Davis says. As a result, the rest of the IT organization is now focusing on adoption of agile delivery methods.

"We were able to prove we can do things in a focused, sequestered manner much faster."

—Julia Davis, CIO, Aflac

Stephanie Overby is a freelance writer based in Massachusetts.

crunch

Big Wallets, Big Expectations

IDC says these are the top IT spenders worldwide—and they expect high levels of responsiveness from their key IT vendors

Company	2014 IT spending (estimated)*
1. Walmart	\$10,162,100,000
2. Bank of America	\$5,333,600,000
3. Citigroup	\$4,330,600,000
4. AT&T	\$4,307,500,000
5. JPMorgan Chase	\$3,978,700,000

* Includes hardware, software, IT services, telecommunications and internal IT personnel

SOURCE: IDC'S WORLDWIDE IT WALLET, 2015

FTC Worries About Bias In Algorithms

The Federal Trade Commission recently set up a new Office of Technology Research and Investigation that will study technology issues affecting consumer protection, including "algorithmic transparency."

The goal is to better understand how computer algorithms work—their underlying assumptions and logic—to ensure that they don't enable unfair discrimination in credit, housing, jobs or pricing, for example.

"Consumers interact with algorithms on a daily basis," says Ashkan Soltani, the FTC's chief technologist. "[Yet] we have little insight as to how these algorithms operate, what incentives are behind them or what data is used and how it's structured."

It's unclear whether the FTC will propose regulations. Experts speculate that the agency could require transparency reports for algorithms, or audits of decisions based on algorithms.

"A lot of times the tendency is to let software do its thing," Soltani says. "But to the degree that software reinforces biases and discrimination, there are normative values at stake."

—Katherine Noyes

..... **1 million** business-to-business salespeople in the U.S. who will lose their jobs to self-service B2B e-commerce by 2020. Forrester Research



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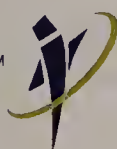
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'Bring It Back Inside'

AstraZeneca's CIO has embarked on an IT transformation, starting with the decision to reverse course on outsourcing **BY MARTHA HELLER**

When Dave Smoley joined AstraZeneca as CIO in 2013, he found—as so many CIOs do when they walk in the door—that IT cost too much and delivered too little. So he developed a mantra: We want to be twice as good for half the cost.

But transforming an IT organization of more than 2,100 people serving a \$26 billion pharmaceutical company takes more than a mantra; it takes a well-thought out, well-executed plan.

Smoley chose a five-pillar approach, which hinged on a dramatic change to his sourcing model. “We are repositioning IT as a competitive advantage for AstraZeneca,” says Smoley. “These five pillars revolve around shifting the work from outside the company to inside the company. We are focused on delivering life-changing medicines, but to do this we also need to be in the business of implementing world-class technology. We need to develop that capability in-house.”

Five Pillars of IT Transformation

Focus on the customer. Rather than just “managing one narrow piece of a process,” he says, “every IT employee needs to ask, ‘Who is my customer? How am I serving them? How well do I understand what they need to do? How am I linking what I do to what they do?’”

Deliver operational excellence. “While we need to be innovative, we must also recognize that we operate IT and that we need a stable and secure global infrastructure,” says Smoley. One of his first steps was to bring SAP support in-house. “It’s easy to say, ‘SAP support is complex, so let’s outsource it.’ But we want to be better at running operations, and we want to reduce our costs, so we are supporting SAP ourselves,” he explains.

Lead through technology. For years, consultants have preached that much of IT is a commodity and belongs in the

hands of outsourcers. But what do you do when technology has moved into the forefront of business change? “We had become somewhat removed from technology leadership through the use of third-party consultants and advisory services who would select and run our technology,” says Smoley. “As a result, we were not as close to the technology

as we needed to be. We now recognize that with the potential for technology to transform our business, we have to master the technology ourselves.”

Simplify. Smoley describes AstraZeneca’s previous IT sourcing arrangement as “a complex ecosystem of multiple third-party suppliers who were involved in everything we did. We had multiple handoffs, so you had to get 10 people in a room to make a change.”

Having shifted from 70 percent of IT services outsourced to 30 percent, Smoley says he and his IT team have “minimized

the handoffs and simplified our [IT] processes.”

Collaborate. How can people in a global enterprise share information and do videoconferencing on any device anywhere? For Smoley and his team, taking a “mobile first” approach is one answer. “We look at every application we develop and every package we choose from a mobile perspective,” he says. “Can you use it from the phone? If the answer is yes, then we go back to see what it looks like on a desktop.”

Smoley’s advice for CIOs embarking on a transformation of this magnitude: Bring it back inside. “When you outsource, you are paying a premium to somebody who is not in your company,” he says. While acknowledging that there are times when you have to outsource for a ramp-up, “in general,” he says, “you will get better alignment, speed and delivery if you keep IT in-house.”

Martha Heller is president of executive recruiting firm Heller Search Associates and author of *The CIO Paradox*.

We had become somewhat removed from technology leadership through the use of third-party consultants and advisory services.

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Customer Success Is Our Mission

Driving Into the Cloud

An automotive retailer replaces data centers with 100 percent cloud-based systems so IT can focus on business **BY MARY K. PRATT**

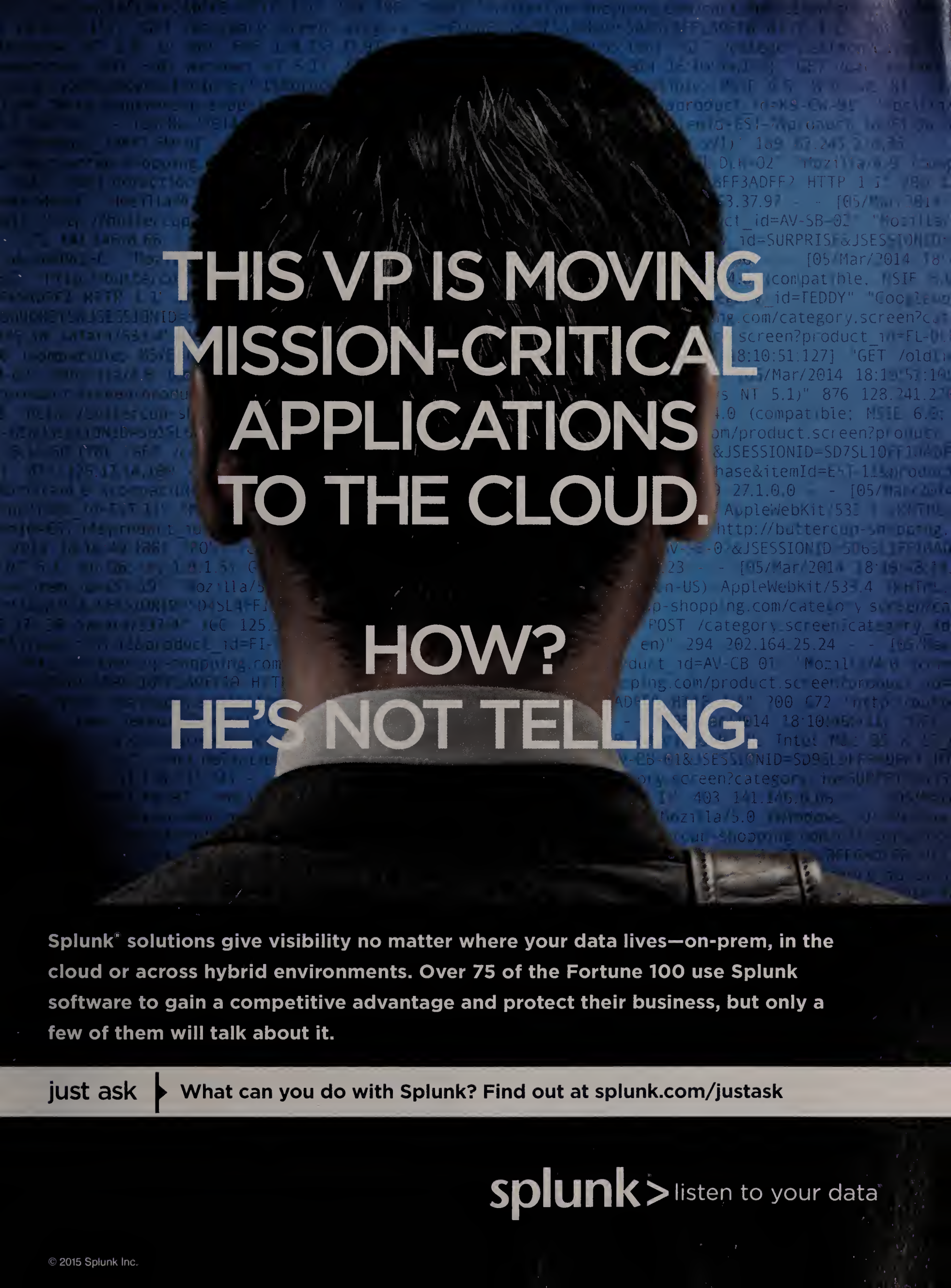
Asbury Automotive Group CIO Barry Cohen says his team should focus on what it does best, and drop the rest. With that as its guiding philosophy, the \$5.9 billion automotive retailer decided to become data-center-free.

"We decided we don't do data centers well, nor develop applications well," Cohen says.

The move paid off. Cohen says he and his staff now spend most of their time working with the business—a strength for his team and a goal for many IT leaders. Meanwhile, the company's technology is 100 percent in public and private clouds.

Cohen, who joined the company in 2011 as an enterprise architect, started on this path by first evaluating the IT team's core competencies. He wanted to keep the tasks that his team could do better, more quickly or more cheaply than an outside vendor, but shed those that a service ▶▶▶





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APPLICATIONS
TO THE CLOUD.**

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►►► **Drive to the Cloud** Continued from page 16

provider could handle more effectively.

He determined that IT wasn't good at managing data storage, backups, patching and 24-hour support—all of which are part of running a data center. But he saw strengths in governance, compliance, project management, application management and systems integration.

An early win, where he moved from a costly, ineffective on-premises reporting system to a cheaper, better-performing business intelligence tool in the cloud, helped Cohen promote his strategy.

Cohen, who became CIO in March 2014, also showed that cloud computing would reduce spending on things like hardware upgrades by millions of dollars. Indeed, his strategy has produced a decreasing IT budget, with no capital expenses; his budget is 100 percent operational expenditures.

Three Data Centers: Closed

Since 2011, Cohen and his staff have moved from on-premises legacy systems to either software-as-a-service products or applications running in a public cloud or a vendor-managed private cloud. He closed three data centers housing about 70 servers and trimmed the IT staff from 51 people to 38, even as the company increased total head count.

At the same time, some work was brought back in-house, says Cohen, citing network monitoring, which he says his team handles better, and at a lower cost, than a service provider did.

There were some bumps in the process. Cohen says cataloging applications, determining alternative solutions and migrating from legacy applications to new ones were big challenges. Convincing programmers to support the new direction also proved difficult, and he did lose staff as a result.

But those who stayed are better engaged with the business. "They're visible. They're talking with people and identifying issues and getting them resolved quickly," he says.

Although the no-data-center strategy worked for Asbury Automotive, Gartner analyst Ed Anderson says it's not for everyone.

If technology plays mostly a supporting role for a business, then being data-center-free makes sense, Anderson says. But if technology is core to what a business does, that approach could lead to a loss of competitive advantage if it, for example, left the organization unable to customize applications.

Mary K. Pratt is a freelance writer based in Massachusetts.

Mobile Connectivity Leads to Guilt Complex

BY TOM KANESHIGE

James Gordon, CIO at Needham Bank, plans to hike 100 miles in the backcountry with a few friends. They'll be relying on an old-fashioned compass and their wits to survive. If someone breaks a leg, they'll have to carry the victim out or send a party to find help, because nobody will be packing a satellite phone.

Gordon says mobile technology would ruin the experience. He doesn't want to be distracted, and he says he might even feel pressured to do a little work if he had mobile access. "I'd feel guilty about it," he says.

In a MobileIron-Harris poll of 3,500 professionals who use mobile devices, many respondents admitted to "shadow tasking"—using mobile technology to mix personal and work activities throughout the day—and 58 percent said they feel guilty about it.

At the heart of that guilt is the notion of theft. Working at home or on vacation feels like you're stealing time away from family and friends. On the other hand, conducting personal affairs during work hours feels like you're stealing from your employer.

The guilty feelings and stress levels will only get worse if smart watches catch on. "People's wrists are going to be vibrating," Gordon says.

Ultimately, guilt trips come with a high price tag. Gordon says he sees it every day, in the form of distracted drivers swerving on the road while texting. The blended work-life culture, he says, leads to a world of distracted working and distracted living—and doing neither well. "Try giving attention to your spouse while typing up a presentation," Gordon says. "Which master are you upsetting?"

How CIOs Can Help: Gordon says it's the CIO's job to help employees maintain work-life balance. That might sound ironic, because CIOs helped create the problem by building always-on systems that push the boundaries of worker productivity. But Gordon says a CIO can make the case that the blended work-life culture leads to a higher quantity of production but a lower quality of work. One way to help is to deploy email features such as a true "do not disturb" state for mobile devices.

It's important to address the problem before feelings of guilt and stress get out of hand, Gordon says. The imbalance will lead people to look for ways to unplug, as Gordon plans to do on his backpacking trip. He wants to disconnect completely, rid himself of both work and personal distractions, and focus on the task at hand.

In this case, it means taking a walk in the woods.

Tom Kaneshige is a senior writer at CIO.com.

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The Path to the Cloud Can Be Rocky

Advantages include scalability and lower capital costs, but some staffers will balk at the shift to cloud computing **BY THOR OLAVSRUD**

The journey to the cloud can be fraught with unexpected pitfalls, but many companies have undertaken it anyway, hoping to realize promised benefits such as agility and scalability. IT executives who have successfully navigated the dangers have learned many lessons along the way.

Global weather forecasting service AccuWeather has been delivering its content from the cloud since 2012, when it adopted Microsoft's Azure platform. "We don't have a gigantic staff," says Christopher Patti, vice president of technology at AccuWeather. "In the past, it took a serious amount of time to provision equipment. Now my development staff can go to the Web and click a few buttons and have a full environment deployed worldwide."

For AccuWeather, the drive to the cloud was focused on scalability. "As more connected devices came on the market worldwide, we went from 2 million to more than 4 billion requests a day within five years," Patti says. "Scale became a challenge."

Overall, he says, the move to the cloud has allowed AccuWeather to speed time to market and innovation, scale on demand, improve access to real-time weather data and cut capital costs by 40 percent.

But the journey has had rocky points. For instance, Patti says some members of his team have been hard to win over.

"Ten percent to 20 percent of my staff are not embracing the cloud concept because they feel it's going to put them out of a job," he says. "I wish they would embrace the cloud more. You've got to align your staff with your strategic goals. All our

new hires are being hired with that in mind. I don't need anyone to manage physical assets anymore."

Patti now considers cloud the default option for any project. His staffers need a solid justification for creating on-premises systems. "I challenge them to pick something they're doing now and figure out how to do it with the cloud," he says.

10 to 20 percent of AccuWeather's IT staffers aren't embracing the cloud because they feel it's going to put them out of a job.

Underwriters Laboratories (UL), an independent testing and certification company, also has extensive tenure in the cloud. Previously, the company found itself paralyzed by more than 300 custom applications running on IBM's Lotus Notes and Domino. "We were at the point where we could not even upgrade because we had customized it so much and newer versions would not support our global infrastructure," says Thomas Boxrud, UL's director of enterprise infrastructure services.

Forget Customization

Christian Anschuetz, UL's global CIO, set out to change that by adopting Microsoft's cloud-based Office 365. "Our ventures into cloud platforms have been very successful," he says, but adds a cautionary note: You can forget about customization.

"There's nothing more standard than a cloud-based product," he says. "You can configure, but customization

you do at your peril."

Another lesson: "We had to spend a lot of time doing internal marketing" to get employees comfortable with new technology, Anschuetz says.

Today, as the company prepares to adopt Microsoft Dynamics in the cloud, Anschuetz says that his team has learned to be much more deliberate about ensuring "organizational

readiness" for the technology change. "If the organization's not ready, if it doesn't have the right culture, then we probably shouldn't implement it," he says.

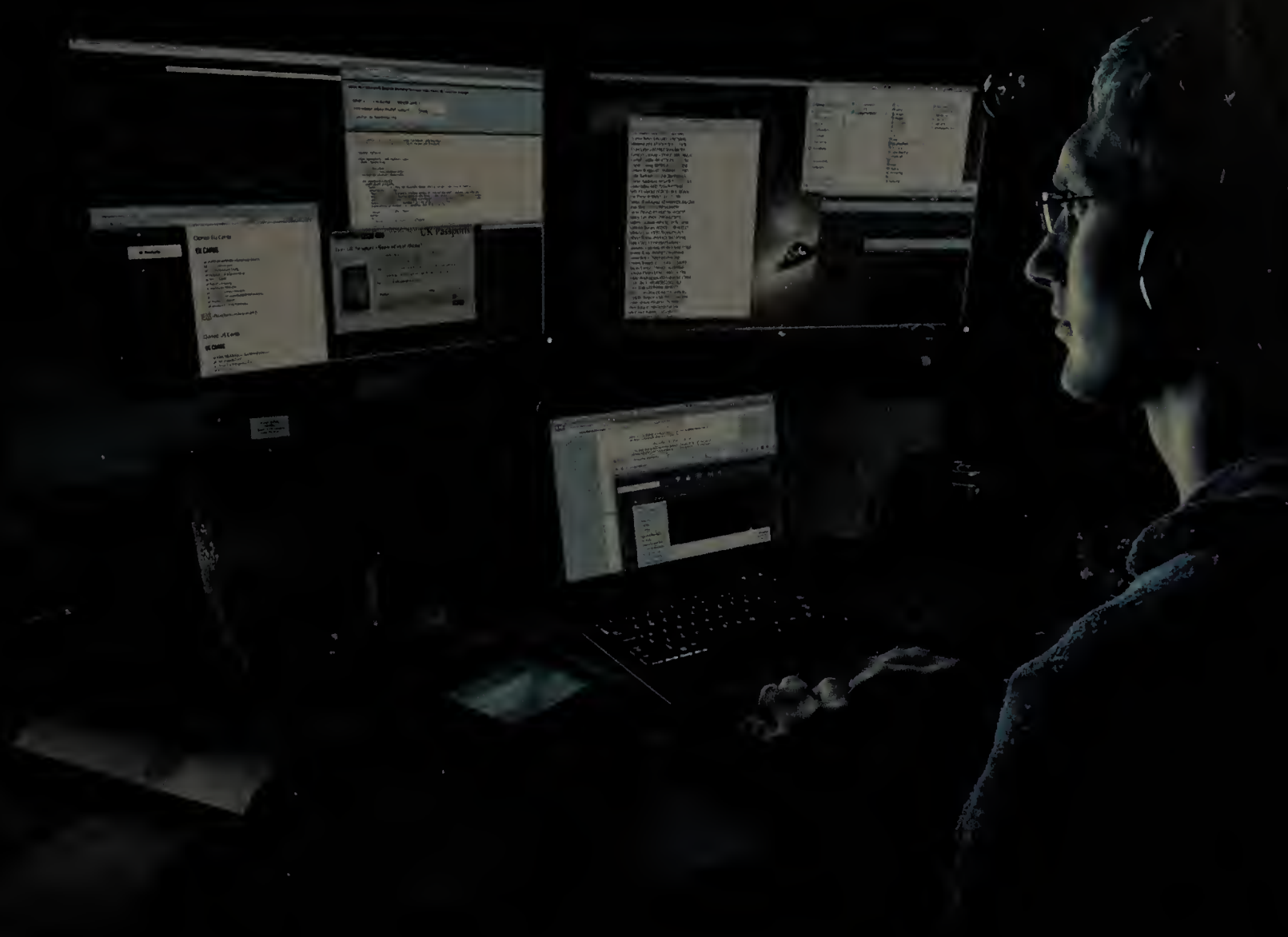
Bill Kehoe, CIO of King County in Washington state, notes that "the full ROI of moving to a cloud environment is compromised if you need to also build an on-premises environment for customers that either do not want to move to the cloud or cannot move to the cloud due to security constraints."

Don't "underestimate the amount of change that will occur with the people, process and technology," Kehoe says. "A savvy organization will incorporate a change-management program early in the process of establishing cloud platforms to properly transition staff, customers, business processes and traditional on-premises technology to the cloud."

Thor Olavsrud, a senior writer at CIO.com, is based in New York.

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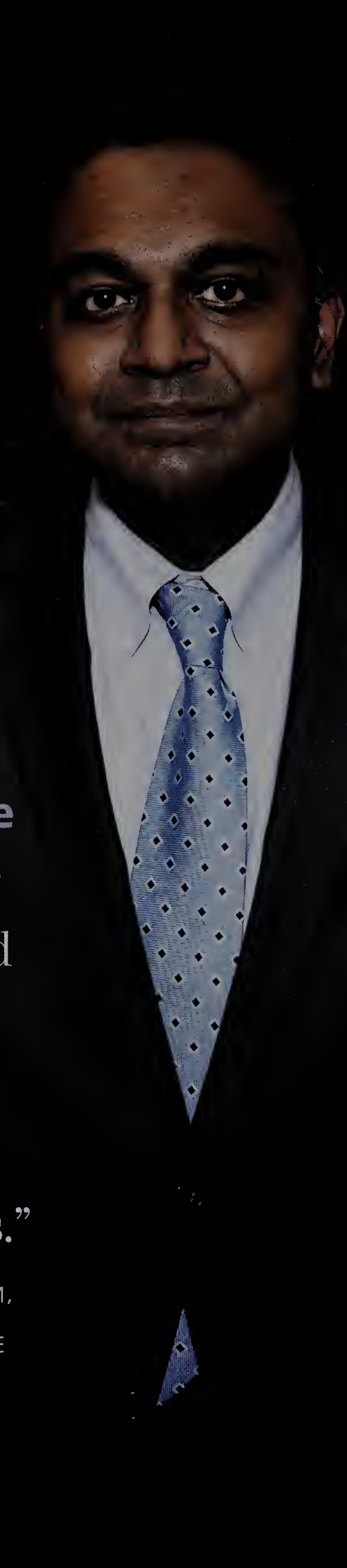
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A portrait of Eash Sundaram, a man with dark hair and a slight smile, wearing a dark suit, white shirt, and a blue tie with a small white diamond pattern. He is standing against a dark, textured background.

“We put **people**
in front of our
processes and
look at all of
our products
through the
customer lens.”

-EASH SUNDARAM,
CIO, JETBLUE

ABOUT FACE!

Customer-centric IT has arrived. CIOs are giving their teams new marching orders to focus externally.

23

BY JULIA KING

Personal. Helpful. Simple.

None of those words is typically associated with the process of checking in for a flight at the airport. That's precisely why JetBlue Airways is getting rid of check-ins entirely.

"We went through a mapping of our processes and decided check-in was meaningless in that it added no value to the customer," says CIO Eash Sundaram. So IT rolled out a new system whereby certain customers are automatically checked in 24 hours prior to their flights. (The automatic check-in service will be extended to all JetBlue passengers in the next year or so.)

The no-check-in initiative is part of JetBlue's all-out push to deliver superlative customer service, which the airline sums up in its mantra of "personal, helpful, simple." In addition, Sundaram says IT focuses on being proactive rather than reactive.

"At the airport, we don't ask the questions of 'What's your name? Where are you going,'" he says. "We have already mapped all the touch points and eliminated those that add no value to the customer. We put *people* in front of our processes and look at all of our products through the customer lens."

Increasingly, a customer-centric approach is a matter of competitive advantage, even business survival. By 2020, customer experience will overtake price and product as the key brand differentiator, according to Walker Information, a national consulting firm focused on customer intelligence. Thanks largely to the explosion of digital technologies and the acceleration of innovation, "customers will be more informed and in charge of the experience they receive," Walker says. To be relevant in 2020, companies



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DevOps = Agility

FIND OUT HOW THE DEVOPS METHOD SPEEDS TIME TO MARKET AND CREATES A CULTURE OF COLLABORATION.



DR. MARK LITTLE is vice president of middleware engineering at Red Hat.



ASHESH BADANI is vice president and general manager of Red Hat's cloud/OpenShift business unit.

DevOps can help IT become strategic and agile. Here, Dr. Mark Little, vice president of middleware engineering at Red Hat, and Ashesh Badani, vice president and general manager, cloud/OpenShift business unit at Red Hat, explain how.

Q: How is DevOps different from other more traditional development methodologies?

Little: DevOps provides agility. It goes hand-in-hand with the need to empower developers to become more responsible for the end-to-end development and deployment of processes. One of the hallmarks of DevOps is operating more within a production environment than when using traditional processes, making it easier to respond to the competitive environment.

Badani: There has always been a quest to find better, more efficient ways to produce applications. DevOps reduces the cycle time to develop, deploy, manage and test applications by creating a culture where IT ops and developers work closer together.

Q: What do you see as the compelling business case of embracing a DevOps approach?

Little: The traditional waterfall model of producing enterprise software can take one to two years before you can actually give it to a customer. That might be okay if everything goes according to plan, but most stakeholders will want to provide feedback for product iterations, and that takes extra time and can cause delays. DevOps allows for faster iterations and thus speeds application time to market.

Badani: Also, having teams that develop and launch applications into production quickly enables the organization to be agile in bringing new services to market. Plus, as DevOps abilities improve, you are able to sustain more applications with a more innovative culture.

Q: What should CIOs look for in terms of tools or technology?

Little: Over the past few years, many tools have presented themselves to help CIOs and developers take meaningful steps toward a successful DevOps culture. These include Red Hat Enterprise Linux Atomic Host, Linux containers such as Docker or Jenkins CI, as well as various platforms and service environments like OpenShift.

Q: What types of projects serve as good starting points for organizations to realize the potential of DevOps?

Little: Start with proof-of-concept projects as well as those you can build on, which have good experiences as far as tooling. Start slow and allow DevOps to grow.

Badani: Projects aimed to be cloud-native applications are great places to start. Ensure that upstream products and others you work with are also using the DevOps mentality. If not, you will suffer bottlenecks with the DevOps story grinding to a halt.

Q: Are there any common misconceptions or mistakes that could potentially hamper DevOps success?

Little: Trying to bring waterfall processes to DevOps never works because DevOps requires working together from the start. Also, DevOps is about empowering a diverse team with responsibilities for all stages from development to deployment and revision.

Badani: It's a mistake to assume DevOps is a quick fix. You cannot immediately start moving at the speed of Amazon or Facebook. While DevOps needs top-down support, those affected must understand and appreciate what DevOps offers — stressing the need for more education and cross team buy-in. Overall, to be successful, DevOps requires: process automation from development through ongoing operations; a culture of collaboration with openness and transparency; and the use of open source tools that draw from innovative development communities.

To download a free white paper on this topic, go to www.cio.com/whitepapers/redhatvp

Tips for Choosing Your Front Line

Hint: Find out who's capable of (nontechnical) dinner conversation with a client

Would you be comfortable taking an apps developer or an IT architect along on a sales call with one of your company's new customers? How about inviting them to dinner with a prospective business partner or supplier?

Those are the kinds of situations that CIOs leading customer-centric IT organizations say they try to imagine when they're recruiting prospective IT employees.

PulteGroup CIO Joe Drouin recently interviewed

applicants for 35 IT jobs, many of them spots on the homebuilder's customer-facing business engagement teams. "From the very beginning, I had the notion that I didn't need [just] a .Net developer, I needed a .Net developer who I could sit with and have a conversation that had nothing to do with technology," he says.

"I'd envision this person sitting across the table from another business leader or in a model home or in a construction trailer interacting with a construction manager. What I was looking for

is an ability to explain things in a nontechnical, non-intimidating way," he says.

But not everyone in IT is cut out for face-to-face interactions with external customers. It's part of an IT leader's job to identify those who are and then encourage them to move into customer-facing roles.

"It's more of an art than a science," says Chico's CIO Eric Singleton. Key characteristics he seeks include an entrepreneurial spirit, a gregarious nature and an ease with conversation.

—J.K.

"must emphasize proactive and personalized service."

At JetBlue, says Sundaram, getting IT to this level of customer focus involved "a big mindset shift [because] IT was accustomed to thinking in transactions. Instead, we wanted to look at the customer's airport experience."

For guidance in making this leap, Sundaram says he and his IT team looked to—and continue to emulate—highly regarded, customer-focused companies like Google, Apple and others outside of the airline industry. JetBlue also partnered with Stanford University's Graduate School of Business and the Hasso Plattner Institute of Design at the Stanford School of Engineering on multiweek projects to immerse JetBlue leaders, including many from IT, in a customer-focused case study of the airline. The program included classroom training plus field research at San Francisco International Airport to help executives better understand customers' needs and JetBlue's practices.

At the company's headquarters in New York, IT is a stand-alone organization, but IT employees are integrated into various functions, like marketing and operations. Sundaram also leads the company's multimillion-dollar customer experience innovation program, along with JetBlue's chief commercial officer and chief customer experience officer.

To gain a deeper understanding of new customers, JetBlue dispatches IT staffers and other employees on trips to expansion markets. In the Dominican Republic, for example, many people pay in cash instead of using credit cards, "so IT is now working on a next-generation kiosk to act like an ATM," Sundaram notes.

Internally, JetBlue also has made customer satisfaction a key factor in employees' compensation. One-third of Sundaram's job performance rating is based on how much customers enjoy traveling with JetBlue, he says.

"When you peel the onion back, every goal we have for our IT

members is tied to customer experience, too, not to IT systems," Sundaram says. Ultimately, JetBlue "wants to be a lifestyle brand, not just an airline," he explains. "Apple and Nordstrom are great brands, and customer experience is what they really focus on. We're trying to do the same thing."

Changing the Questions

Shifting IT's mindset to look beyond company boundaries and focus on paying customers changes the equation entirely, according to Eric Singleton, CIO at Chico's FAS, a \$2.6 billion specialty retailer with 1,547 stores. "You think about things differently," he says. "You ask different questions that you don't ask if you're in a basement writing code for internal customers."

That's why Singleton and other members of his 250-person IT organization regularly visit the company's stores—to get up close and conversational with shoppers. Singleton is especially keen to observe how women interact with a 24-in. touchscreen that's mounted in a cabinet near the back of the store. Known as the "tech table," the touchscreen lets shoppers browse beyond the 60 percent of inventory displayed in physical stores to view and buy hundreds of additional products online.

He describes the table as "a social watering hole" and "an augmented shopping experience that is fueled by the customers' social energy around it in the moment."

Best of all, tech table sales routinely add 15 percent to 20 percent to in-store sales totals every day—a figure that's higher than anyone at Chico's anticipated.

IT also regularly collaborates with marketing and merchandise managers to come up with new ways for customers to interact with the company. Next up from IT, for example, is



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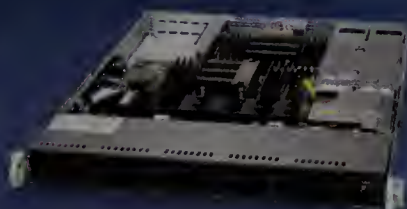
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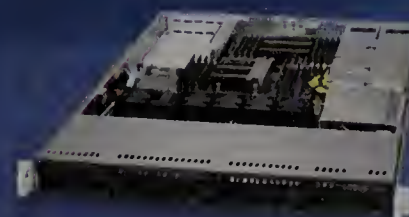
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It's time to "bring IT out from behind the curtain to engage on the front lines of the business."

-JOE DROUIN, CIO, PULTEGROUP

an augmented-reality catalog that shoppers can browse, using their smartphone to mix, match and buy different pieces of clothing shown in different photos.

Changing the Mission

At PulteGroup, achieving customer-facing IT required "a significant rebuild of the IT organization," says Joe Drouin, CIO at the \$5.8 billion homebuilder.

It all started in 2010 when Pulte launched a new companywide mission to become more "consumer-inspired." "The company as a whole made a commitment to getting closer to what our customers and potential customers want from a home," Drouin explains. "You would assume that there is nothing more personal than a person's house, but for a long time we just built homes the way we always did, from standard floor plans."

At the time, IT was recovering from a very long period of "just keeping the lights on," he says. "We were coming out of a long downturn, as homebuilding was one of the last industries to recover from the big recession."

A major break came when PulteGroup decided to relocate its headquarters from Detroit to Atlanta. Drouin says that, after he arrived in 2013, he seized the opportunity to overhaul the IT organization, hire about 35 new people in Atlanta and "bring IT out from behind the curtain to engage on the front lines of the business."

"We created new roles that would be visible to the rest of the business and engage with our customers and partners," he says. "We hired a director of customer engagement and a team of people under him. Technology skills were table stakes. We brought people in from a variety of places with the notion that we were looking for people who could sit across the table from a marketing person or homebuilder, or walk into a model home and sit with a sales consultant and have a conversation about what they needed, all in a non-technology-focused way."

Drouin was personally involved with interviewing every one of the serious candidates for the new roles. "I was the last stop. I was looking for an ability to communicate, to engage, interact. I wanted to know I'd be comfortable putting this person in front of a customer," he says. (See "Tips for Choosing Your Front Line, page 26.)

But before candidates made it to Drouin, they had been vetted by recruiters who were well versed in what he wanted in

a customer-focused IT staffer. Drouin and his top managers had spent two full days with a recruiting company, outlining precisely the kinds of people they wanted to hire.

"It wasn't 35 technology job descriptions. We built this profile of the kind of person we were looking for, including some of the experiences we wanted them to talk about to demonstrate those characteristics," he recalls.

That was a key facet of the IT overhaul on which Drouin and his team never wavered, and it made all the difference.

"We viewed every single hire as a critical hire," he says. "It was so important to make this [customer-centric] shift and this transformation that we couldn't afford to say 'This guy is strong technically, but I can't imagine his ability to really engage.' So we didn't make any exceptions to the picture of the person we were trying to hire. It was critical enough to me personally to be in the room and spending time personally because I couldn't afford to have one person slip by that wouldn't be there to drive this major shift in the organization."

Another huge change was redefining the word *customer* as it applied to IT.

"There was this very traditional idea that IT was a service provider and the customer was everyone else inside Pulte," Drouin says. "Today, we don't talk about IT and the business. We talk about IT as part of the business—as ingrained and as tightly woven as any other function, and contributing to business strategy. Our customers are [the company's] end customers."

Aiming to Please

More than a few CIOs make the point that precisely defining the word *customer* is a critical first step toward customer-centric IT. "We make a big point of defining the word *customer*. A customer is the same in IT as it is for the rest of the business. A customer buys cars, buys services and buys parts," says Barry Cohen, CIO at Asbury Automotive Group, a \$5.9 billion automotive retailer with 82 dealerships. "We don't even say 'internal customer.' In fact, we make a big point of saying IT is part of the business and not like an island off by itself. These are small but important nuances because we're trying to build a culture where everybody is thinking the same way."

Asbury's IT infrastructure is made up mainly of automotive-specific systems and software developed and provided by third parties. The company's 39-person IT group is focused on man-

“IT was accustomed to thinking in transactions. Instead, we wanted to look at the customer’s airport experience.”

- EASH SUNDARAM, CIO, JETBLUE

aging the service providers and handling field engineering and support at dealerships. (See “Driving Into the Cloud,” page 16.)

For now, IT staffers don’t work directly with people who are shopping for cars but with employees in the dealerships and in other departments who work directly with customers.

The IT team is focused on taking some of the hassle out of the car-buying experience. “If you’ve bought a car, you know that you can spend an entire day in the dealership, so we’re working on customer-facing things like digital signatures and removing some of the paperwork in that process,” Cohen explains.

Cohen’s team has also spent a good deal of time wiring dealerships with Wi-Fi access points so customers can have access to the Internet and social media.

Cohen himself travels to each of the company’s dealerships at least twice a year and also has IT staffers work in the field at the company’s stores and dealerships. “We walk into a store and meet the parts people and the accounting people. We make ourselves very visible,” he says.

One of the surprising things Cohen and his team have learned at the dealerships is that, although they do have store hours, they have no set closing time. “I’d always ask what time they go home and they always said ‘When the last customer leaves.’ So, my IT staff is really focused on that now,” he says. “We don’t have hours that we are open or closed. It’s when our customer is there.”

Raising the Bar

Anuj Dhanda, CIO and head of digital commerce at Giant Eagle, a \$9.3 billion supermarket chain with 418 stores, keeps close tabs on brands like Apple and Google. Both of those companies, he says, have played a huge role in setting the bar on what customers expect.

Dhanda says IT teams are facing new pressures in how they serve both internal and external customers. “We have to treat all of our customers differently because they’re customers of other companies that have set the bar very differently,” he says. Progressive companies, he adds, “don’t make a huge distinction between internal and external customers.”

For example, Dhanda says that, at many companies, an

employee may need to touch 10 different systems to do a job. So Giant Eagle is using workflow technology to create a better internal user experience that rivals an external customer’s experience.

For customer-facing technologies, IT has upgraded its quality-assurance and user-interface testing to get insight into what customers want, Dhanda says. Giant Eagle conducts workshops with customers that IT teams observe. All IT staffers also work in one of the company’s stores to experience firsthand how IT works on the front line for both employees and customers.

At Agco, a \$9.7 billion maker of global agricultural equipment, CIO Sheryl Bunton is just setting out on the road to customer-centric IT. “Every company has to take that journey, and every company has to stop at all the waypoints,” she says. “We have a toe in the water.”

“The days of [merely] building a product and bringing it to market don’t work anymore. Between social media and the collapse of distribution channels, there’s a very different customer expectation. One of the biggest shifts everyone in IT has to make is getting from an IT focus to a customer focus,” Bunton says.

Much of the shift has to do with dropping the traditional IT command-and-control attitude and adopting the role of influencer. “The perspective that was here was very much of an old-school technologist,” she says. “IT would tell the business what they needed instead of listening to business people and coming back with strategies and recommendations. What I’ve told people is we have to remember we’re a tractor company with an IT function. We’re not an IT company that makes tractors.”

To get there, IT has to prove its status as a valued partner to the business over and over again. “You have to do it enough so that you build trust. It’s becoming very strong at execution that keeps the business engaged and builds that trust,” she says.

Before business partners are willing to bring IT to meet with external customers, they must be confident it will benefit the customer relationship, Bunton says. “If I was making a sales call, I’m only going to expose my customers [to someone] from IT who I can trust and who will add value to the conversation and who will make me look good,” she says. “Otherwise, the risk just isn’t worth it.” **CIO**

Julia King is a freelance writer based in Pennsylvania.

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32

SOUNDING BOARD

Pass the Business Baton

Now that most CIOs are business-focused, they need to develop that mindset in their direct reports

DOUGLAS BLACKWELL, HORIZON BLUE CROSS BLUE SHIELD OF NEW JERSEY
IDENTIFY I.T. PROS WITH ATYPICAL SKILLS

Since I report directly to the CEO, I get information at the most senior level of the company regarding our business strategy, our customer experience, and the vision and goals of the organization. I disseminate that information down to my direct reports, who also have very close contact with managers in all divisions, whether sales, service or healthcare management.

The immediate contact that my direct reports have with business leaders is both formal and casual. When I joined the company, I looked at creating an organization that would facilitate close working relationships between IT and the business divisions. We created a group called Business Solutions. Within that group, we created an IT role called the divisional information leader. This person sits on the ▶▶▶



Douglas Blackwell,
SVP and CIO,
Horizon Blue Cross
Blue Shield of N.J.



Paul Brady,
VP and CIO, Arbella
Insurance Group



John Dick,
CIO,
Towers Watson



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VIEWPOINT

**Ajay Patel**

VP OF APPLICATION SERVICES
FOR V-CLOUD AIR, VMWARE

**Darren Ratcliffe**

CTO, CANOPY, THE ATOS
CLOUD, A VMWARE PARTNER

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Fast Track to Digital Enterprise

How to Drive Business Transformation

Canopy, an end-to-end cloud service provider, helps IT organizations realize the potential of VMware technology. Canopy CTO Darren Ratcliffe and VMware Vice President Ajay Patel discuss how organizations can adapt more quickly to the digital enterprise to reimagine the business.

In the digital economy, how can IT organizations shorten the time to market for developing new applications, gain competitive advantage and regain control in the face of IT sprawl?

AP: As customers increasingly adopt the cloud, the challenge is to overcome skill and infrastructure constraints. The right team can help organizations get started and identify areas where they can benefit from the cloud. Centers of excellence that incorporate best practices also are key to enabling business transformation.

DR: It is imperative to rebuild confidence in the IT organization and show how IT can enable the business. By evolving to support the business and establishing centers of excellence, IT can regain the loss of trust that was behind IT sprawl and why the lines of business circumvented the IT organization.

When it comes to PaaS [platform as a service], what are some of the key challenges application developers face, and how can they be overcome?

DR: PaaS gives developers the tools to write, test and deploy applications quickly with agile, modern techniques. It overcomes the traditional time lag between business requests and application development, which has often resulted in missed windows of business opportunity.

Why do many projects not get completed during project and portfolio management cycles, and what is the impact on business outcomes?

AP: Traditional long-range project cycles do not meet today's expectations for agility. Platforms must deliver value quickly and add services as needed, with a typical 12-month ROI

window to enable rapid business innovation. A PaaS solution delivers on these customer requirements, making it easier to deploy, run and scale applications.

DR: Businesses must become more agile, and IT organizations need to help businesses continually evolve at an unprecedented speed. Virtualization—especially the hybrid cloud—addresses these needs for speed and agility.

How does the VMware/Canopy partnership help enterprises better adapt to the digital economy?

AP: VMware provides a hybrid platform—both the infrastructure and application services—to run critical applications. As a valued partner, Canopy provides customers consulting, development and integration expertise, as well as hosting to alleviate the IT burden and enable rapid innovation.

DR: One of Canopy's goals is to help our customers remove as much friction as possible to evolve seamlessly to the cloud. We help our customers reap the benefits of digital and cloud computing by partnering with VMware, a world leader with incredibly powerful technology. We complement the VMware platform with PaaS and a variety of professional services and solutions, including skills such as application development, maintenance and integration. This removes the friction associated with adopting new technologies and helps customers evolve quickly to the speed of business change. We work with customers wherever they are on their cloud journey, providing services and solutions—from consulting and training to managing the entire infrastructure.

What is the objective of the recently established Cloud Foundry Foundation?

AP: Cloud Foundry provides an Open PaaS platform where vendors and customers can come together, collaborate and learn to use PaaS to drive business innovation and transformation. Because PaaS is an open platform, customers are not locked into a specific environment.

►►► **Pass the Baton** Continued from page 32

staffs of my peers throughout the organization.

When I researched the attributes we needed for the newly created roles, I found that many of the same attributes that salespeople have would be a good fit. We needed “challengers”—people with the ability to push back and seek out the true business requirements. These are not typical skills for IT professionals.

PAUL BRADY, ARBELLA INSURANCE GROUP
FOCUS ON COMMUNICATION, EXECUTION

Our IT group has been on a journey to becoming a trusted business partner. Aligning with the business starts with solid communication, planning at the executive level and the involvement of direct reports.

Each February, I get together with the other executives for a multiday business strategy session, in which we contemplate where the company would like to be in five or 10 years. In June, we have another multiday meeting to discuss major business objectives and goals in the shorter-term—about three years out—and the technology needed to achieve these goals. In September, we build the plan for the following year, which includes very detailed funding and resource requirements. Everything cascades down to my direct reports: They are involved in the preparations for those meetings, and they work with their business counterparts to ensure that the sessions achieve the maximum value.

A few years ago, IT was an underperforming service organization. By having ongoing communication and collaboration with the business, IT is more visible and transparent. Today, when the business has a problem, they engage with us early.

JOHN DICK, TOWERS WATSON
FACILITATE COLLABORATION; TARGET MARKET VALUE

We have IT leaders aligned with each of our four business segments. Those leaders have ongoing dialogue about the needs of our associates and customers, and about how to best leverage our technology standards. A couple of times a year we conduct more formal planning sessions, where we work with each of the lines of business to anticipate their technology needs. We have a portfolio of businesses, with some units that are more mature and focused on efficiency and others that are more innovative, so these discussions help us identify opportunities to leverage technology to other units or across the enterprise.

Systems development is directed at the line-of-business level, which ensures that we are close to our customers and to the market. It's also valuable for my team to bring these groups together regularly to share ideas about the effective use of technology.

It's important that IT leaders and employees understand how their work relates to the company's success. Rather than IT having separate goals, we measure our success by the business goals of the company. An example is the revenue growth or expense reduction we achieve through an initiative or proof-of-concept. Ultimately, our contribution to the market value of the company guides our technology investments on a quarter-to-quarter and year-to-year basis.

TAKE Note

Order-Takers to Order-Shapers

REGISTER There's no harder task than transforming an order-taking IT team into a group of order-shapers. It means asking technologists to be operational, strategic, consultative, innovative and customer-focused. And that's just transforming IT. CIOs and their teams are also leading cultural, business process and even business model transformations every day. Listen to IT leaders discuss their transformation stories with Martha Heller in an Aug. 20 webcast. council.cio.com/ordershaper

Advancing C-Level Women

JOIN Professionals from all industries have joined the CEC Women in Leadership community with a common goal: to take charge of their professional career development. As a community, we identify the realities of career advancement and we help break down barriers by inspiring and teaching the best practices of successful C-level women. We employ new tactics that boost confidence, provide a broad view of the business, and exercise our collaborative spirit while balancing all we choose to enjoy in life. As a participant in the community, you'll experience camaraderie and access to a powerful network of leaders who have overcome many of the same challenges you face. council.cio.com/wib

Knowledge Transfer Success

WATCH CIOs everywhere are looking to move up the IT Maturity Curve by demonstrating increased business value, productivity, cost efficiencies and customer service excellence—all while seeking to promote their organizations as IT employers of choice. This IT transformation starts with great leadership, a clear plan and a framework for moving people from the old way to the new. In this virtual learning session, Wayne Shurts, executive vice president and CTO at Sysco, shares stories and insights about managing change within an 800-employee business technology organization at the world's largest food distributor. council.cio.com/knowtransfer

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CSO

Shifting Gears

IT will drive business change at Toyota Financial Services, says CFO Chris Ballinger **BY MARTHA HELLER**

How is technology affecting your business?

Unlike the past 100 years, our business is no longer just about money; it is also about information. We need core competencies in not only lending but also technology and information management.

Uber achieved a third of Toyota's market valuation in just a few years—when Toyota has been at it nearly a century—by using technology to reduce the cost of contracting between buyers and sellers. With the push of a button, Uber puts the private buyer together with the private seller and creates enormous value for both. Technology's ability to drive down frictional costs allows new business models to emerge rapidly.

Uber has the luxury of having been born very recently and with little legacy technology, people or habits. Our first step is recognizing that technology cannot solve our legacy problems. We have to re-engineer our business processes.

How do you drive change through a company that has legacy business processes?

This is where information is very powerful. If you can demonstrate expected profitability at the transaction level, everyone can see the opportunities for value. When you show employees the impact of every transaction on the business, you turn employees into entrepreneurs. The more information you push down, the less employees will have to wait for senior leaders to tell them what

to do, and the faster they will adapt to change.

Transparency between IT and its business partners is also critical to change. How do you make that happen?

The first step is having a willing partner in IT. Some CIOs are afraid that if they make IT costs transparent, business leaders will say, "I can get storage for less than you charge, so I'll contract with a vendor on my

to make IT costs transparent. It was important to avoid the perception that the business was out to embarrass IT. By IT owning the project, they were able to move more quickly and with more openness than they otherwise would have. Wendy and Andy have successfully transformed the IT-business relationship by exposing the value of IT expenses via multidimensional reporting and consultation. It's been a true game-changer.



Technology cannot solve our legacy problems. We have to re-engineer our business processes.

own." But if you show business leaders what IT really costs, they can be involved in managing those costs.

How do you get business leaders to commit that level of energy?

We educate them to realize that if they understand the true costs of IT, they can make trade-offs between IT and all the other investments on their plate. IT becomes another cost that they can manage.

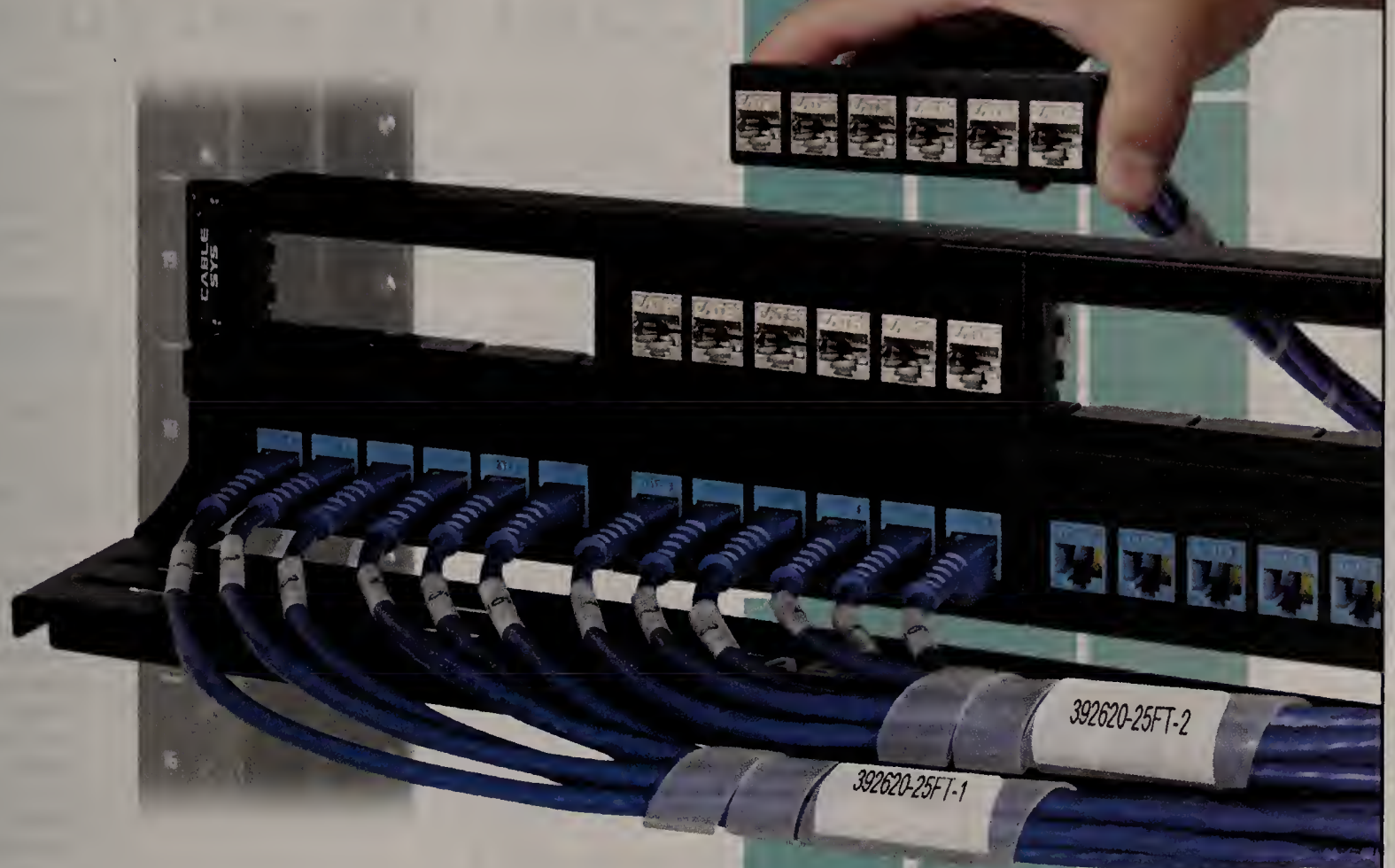
But we didn't start with the business. Our CIO, Ron Guerrier, put two great IT finance people, Wendy Wuo and Andy Wilson, on a project

What tech innovation are you personally excited about?

I look forward to harnessing the enormous amount of processing power in a car. Cars will pay tolls and select routes as they drive through a city. We might wind up buying transportation services instead of owning our own cars, which will have a major impact on traffic patterns in cities. Autonomous cars will radically transform our lives in a relatively short period of time.

Martha Heller is president of executive recruiting firm Heller Search Associates and author of *The CIO Paradox*. Follow her on Twitter: @marthaheller.

Pre-terminated Patch Panel System



Adding a single patch panel?

It is the 21st century and life should be simpler, faster, and better. So why are you still pulling cables, punching down panels and making a mess of your data center cabling project? It's time to look into a 21st century cabling system solution.

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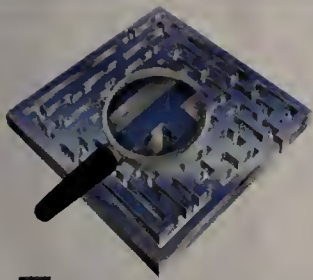
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Smart Paddles

Whether you're an amateur or an aspiring Olympian, learning the proper kayaking techniques can keep you from toppling over or exerting too much energy with the wrong movements. But if you're alone, it's hard to know if your form is correct. Enter Guy Aharon, co-founder and CEO of Motionize, who has developed a sensor to address that problem. "We wanted to take amateurs and make them better," and provide professionals with tools "to scratch off those two seconds and have a better record," he says. By attaching a Motionize sensor to a paddle, kayakers can record stroke length, distance per stroke, speed and heart rate. The Motionize mobile app collects the sensor data, calculates distance, time and speed, and delivers instructions via Bluetooth to the kayaker. If the kayak tips over, the app initiates an emergency call after 30 seconds underwater. Users can view simulations of their strokes and a summary of their stats, and share results on social media. Getting such real-time data is like having "someone there to be your best companion," Aharon says. Motionize is available now for pre-order and will be delivered this summer. —Lauren Brousell

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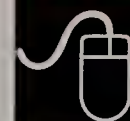
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